

SEQ ID NO:8	Lc743	M	N	F	N	V	S	L	M	E	K	L	K	W	K	I	K	C	I	E	N	20
SEQ ID NO:10	Rm8con	1	60
SEQ ID NO:7	Lc743	ATGAATTTCAACGTTAGTTTGATGGAGAAATTAAATGGAAGATTAAATGCATTGAAAAT Lc743/5'																				
SEQ ID NO:1	Rm8A	.....																			
SEQ ID NO:3	Rm8B	.....																			
SEQ ID NO:5	Rm8C	.....																			
SEQ ID NO:9	Rm8con	.....																			
SEQ ID NO:7	Lc743	K	E	L	N	Y	R	L	T	T	N	E	T	V	V	A	E	T	E	Y	G	40
SEQ ID NO:1	Rm8con	61	120
SEQ ID NO:3	Lc743	AAGTTTTTAAACTATCGTTTAACTACCAATGAACGGTGGTAGCTGAACTGAATATGGC																				
SEQ ID NO:1	Rm8A	.....																			
SEQ ID NO:3	Rm8B	.....																			
SEQ ID NO:5	Rm8C	.....																			
SEQ ID NO:9	Rm8con	.....																			
SEQ ID NO:7	Lc743	K	V	K	G	V	K	R	L	T	V	Y	D	S	Y	Y	S	F	E	G	50	
SEQ ID NO:1	Rm8con	121	180
SEQ ID NO:3	Lc743	AAAGTGAAAGGCGTTAAACGTTTAACTGTGTACGATGATTCCTACTACAGTTTGGAGGGT																				
SEQ ID NO:1	Rm8A	.....																			
SEQ ID NO:3	Rm8B	.....																			
SEQ ID NO:5	Rm8C	.....																			
SEQ ID NO:9	Rm8con	.....																			
SEQ ID NO:7	Lc743	I	P	Y	A	Q	P	P	V	G	E	L	R	F	K	A	P	Q	R	P	T	80
SEQ ID NO:1	Rm8con	181	240
SEQ ID NO:3	Lc743	ATACCGTAGGCCCCAACCCGAGTGGGTGAGCTGAGATTTAACGACCCCGGACCAACA																				
SEQ ID NO:1	Rm8A	.....																			
SEQ ID NO:3	Rm8B	.....																			
SEQ ID NO:5	Rm8C	.....																			
SEQ ID NO:9	Rm8con	.....																			

FIG. 1A

Lc743	P	W	D	G	V	R	D	C	C	N	H	K	D	K	S	V	Q	V	D	F	100
Rm8con	241	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	300
Lc743		C	C	T	G	G	A	T	G	T	G	T	G	T	G	T	G	T	G	T	+
Rm8A		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8B		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8C		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8con		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lc743	I	T	G	K	V	C	G	S	E	D	C	L	Y	L	S	V	Y	T	N	N	120
Rm8con	301	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	360
Lc743		A	T	A	C	G	G	G	C	A	A	A	G	T	G	T	G	T	G	T	+
Rm8A		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8B		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8C		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8con		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lc743	L	N	P	E	T	K	R	P	V	L	V	Y	I	H	G	G	G	F	I	I	140
Rm8con	361	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	420
Lc743		C	T	A	A	T	C	C	C	G	A	A	A	C	T	A	A	A	C	T	+
Rm8A		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8B		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8C		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8con		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lc743	G	E	N	H	R	D	M	I	G	P	D	Y	F	I	K	K	D	V	V	L	160
Rm8con	421	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	480
Lc743		G	G	T	G	A	A	A	T	C	G	T	G	A	T	G	T	G	T	G	+
Rm8A		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8B		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8C		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Rm8con		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

FIG. 1B

Lc743	I N I Q Y R L G A L G F L S L N S E D L	180
Rm8con	. . . . .	540
481	-+-----+-----+-----+-----+-----+	
Lc743	ATTAACATAAATCGTTTGGAGCTCTAGTTTTCTAAAGTTTAAATTTCAGAAGACCTT	
Rm8A	. . . . .
Rm8B	. . . . .
Rm8C	. . . . .
Rm8con	. . . . .
Lc743	N V P G N A G L K D Q V M A L R W I K N	200
Rm8con	. . . . .	600
541	-+-----+-----+-----+-----+-----+	
Lc743	AATGTGCCCCGTAATGCGGCCTTAAAGATCAAGTCATGCGCTTGCGTTGGATTAAAAAT	
Rm8A	. . . . .
Rm8B	. . . . .
Rm8C	. . . . .
Rm8con	. . . . .
Lc743	N C A N F G G N P D N I T V F G E S A G	220
Rm8con	. . . . .	660
601	-+-----+-----+-----+-----+-----+	
Lc743	AATTGGGCCCAACTTTGSGTGGCAATCCCGATAATAATTACAGTCTTTGGTGAAGTGCCGGT	
Rm8A	. . . . .
Rm8B	. . . . .
Rm8C	. . . . .
Rm8con	. . . . .
Lc743	A A S T H U M M L T E Q T R G L F H R G	240
Rm8con	. . . . .	720
661	-+-----+-----+-----+-----+-----+	
Lc743	GCTGCCTCTACCCCACTACATGATGTTAACCGGAACAATTCGGGTCCTTTTCCATCGTGGT	
Rm8A	. . . . .
Rm8B	. . . . .
Rm8C	. . . . .
Rm8con	. . . . .

Lc743	I	L	M	S	G	N	A	I	C	P	W	A	N	T	Q	C	Q	H	R	A	260								
Rm8con	.	.	.	.	.	.	.	.	.	.	L	.	.	.	.	.	.	.	.	.	721								
Lc743	AT	ACT	AA	TG	CG	GT	AA	TG	CT	AT	T	T	G	T	C	CA	T	G	GG	CT	AA	TG	CA	CA	TG	CT	GC	780	
RM8A	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RM8B	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RM8C	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8con	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lc743	F	T	L	A	K	L	A	G	Y	K	G	E	D	N	D	K	D	V	L	E	280								
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	781								
Lc743	TT	CAC	CT	TA	GC	CA	AA	TT	GC	CG	CT	AT	AA	GG	GT	GA	GA	T	AT	GA	T	AT	GA	T	AT	GA	T	840	
RM8A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RM8B	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RM8C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lc743	F	L	M	K	A	K	P	Q	D	L	I	K	L	E	E	K	V	L	T	L	300								
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	841								
Lc743	TT	TCT	AT	GA	AG	CC	CA	AG	CC	AG	CA	GG	AT	TT	AA	TA	AA	AA	CT	TG	AG	GA	AA	AG	TT	TA	ACT	CTA	900
RM8A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RM8B	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RM8C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lc743	E	E	R	T	N	K	V	M	F	P	F	G	P	T	V	E	P	Y	Q	T	320								
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	901								
Lc743	GA	AG	CG	GT	AC	AA	TA	AG	GT	CA	TG	TT	CC	TT	TT	GG	ST	CC	CA	CT	GT	TG	AG	CC	AT	AT	CAG	ACC	960
RM8A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RM8B	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RM8C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

FIG. 1D

Lc743	A D C V L P K H F R E M V K T A W G N S	340
Rm8con	. . . . . + - - - - + - - - - + - - - - + - - - - + - - - - +	961
Lc743	GCTGATTGTCTTACCCCAACAATCCTCGGGAAGTGTTAAACTGCTGGGGTAATCG	1020
Rm8A	. . . . .
Rm8B	. . . . .
Rm8C	. . . . .
Rm8con	. . . . .
Lc743	I F T M M G N T S Y E G L F F T S I L K	360
Rm8con	. . . . . + - - - - + - - - - + - - - - + - - - - + - - - - +	1021
Lc743	ATACCACCTATGATGGGTAACTTCATATGAGGGTCTATTTTCACTTCAATCTTAAG	1080
Rm8A	. . . . .
Rm8B	. . . . .
Rm8C	. . . . .
Rm8con	. . . . .
Lc743	Q M P M L V K E L E T C V N F V P S E L	380
Rm8con	. . . . . + - - - - + - - - - + - - - - + - - - - + - - - - +	1081
Lc743	CAAATGCCCTATGCTTGTTAAGGAATTGGAACTTGTGTCAATTTTGTGCCAAGTGAATTG	1140
Rm8A	. . . . .
Rm8B	. . . . .
Rm8C	. . . . .
Rm8con	. . . . .
Lc743	A D A E R T A P E T L E M G A K I K K A	400
Rm8con	. . . . . + - - - - + - - - - + - - - - + - - - - + - - - - +	1141
Lc743	GCTGATGCTGAACGCACCGCCCCCAGAGACCTTGGAAATGGGTGCTAAAAATTAAAAGGCT	1200
Rm8A	. . . . .
Rm8B	. . . . .
Rm8C	. . . . .
Rm8con	. . . . .

Lc743	H	V	T	G	E	T	P	T	A	D	N	F	M	D	L	C	S	H	I	Y	420
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1260
Lc743	C	A	T	G	T	T	A	C	A	G	A	A	T	T	T	T	A	T	T	T	1201
Rm8A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8B	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lc743	F	W	E	P	M	H	R	L	L	Q	L	R	F	N	H	T	S	G	T	P	440
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1320
Lc743	T	T	C	G	T	T	C	C	C	A	T	G	C	A	T	T	T	G	C	A	1261
Rm8A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8B	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lc743	V	Y	L	Y	R	F	D	F	D	S	E	D	L	I	N	P	Y	R	I	M	460
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1380
Lc743	G	T	C	T	A	C	T	T	G	G	A	A	T	T	A	T	T	A	T	T	1321
Rm8A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8B	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lc743	R	S	G	R	G	V	K	G	V	S	H	A	D	E	L	T	Y	F	F	W	480
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1440
Lc743	C	G	T	A	G	T	G	G	A	A	T	T	A	A	G	G	T	T	A	A	1381
Rm8A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8B	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rm8con	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

FIG. 1F

[illegible]

Lc743		S	M	F	E	K	H	R	D	L	F	*	570
Rm8con	1681	.	.	.	.	.	.	.	.	.	.	.
		---	---	---	---	---	---	---	---	---	---	---	1713
Lc743		TCGATGTTTG	AAAAA	ACATAGAGAGATTTATT	TTAG								
RM8A		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
RM8B		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
RM8C		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rm8con		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

FIG. 1H

401	HVDGETETLDNFMELCSYFFELFFEMHRELQLRFENHTAGTPIYLYRFEFDS	450
	. : : : : : : :	
401	HVTGETPTADNFMDLCSHIYFWFEMHFLQLRFENHTSGTFVYLYRFEFDS	450
	. : : : : : : :	
451	EEIINPYRIMRFRGRGVKGVSHADELTYLFWNILSKRLPKESREYKTIERM	500
	. : : : : : : :	
451	EDLINPYRIMRSGRGVKGVSHADELTTFEWNQLAKRMPKESREYKTIERM	500
	. : : : : : : :	
501	VGIWTEFATTGKPYSNNDIAGMENLTWDFPKKSDDVYKCLNIGDELKVMDS	550
	. : : : : : : :	
501	TGIWIOFATTGNPYSNEIEGMENVSWDPIKKSDEVYKCLNISDELKMDV	550
	. : : : : : : :	
551	PEMDKIKQGASIFDKKKELF	570
	. : : : : : : :	
551	PEMDKIKQWESMFEKHRDLF	570
	. : : : : : : :	

FIG. 2B

SEQ ID NO:14	1	ATGACTTTTCTGAAGCAATT	CATATTTGCGCTGAAACTATGCTTTAAATGCATGGTCAAT	60
		-----+	-----+	
		TACTGAAAAGACTTCGTTAAGTATAAAGCGGACTTTTGATACGAAATTTACGTACCAGTTA		
SEQ ID NO:13		M T F L K Q F I F R L K L C F K C M V N	-	
	61	AAATACACAAACTACCGTCTGAGTACAAATGAAACCCAAATAATCGATACTGAATATGGA	120	
		-----+	-----+	
		TTTATGTGTTTGATGGCAGACTCATGTTTACTTTGGGTTTATTAGCTATGACTTATACCT		
		K Y T N Y R L S T N E T Q I I D T E Y G	-	
	121	CAAATTAAGGGTGTTAAGCGAATGACCGTCTACGATGATTCTTACTACAGTTTCGAGAGT	180	
		-----+	-----+	
		GTTTAATCCACAAATTGCTTACTGGCAGATGCTACTAAGAAATGATGTCAAAGCTCTCA		
		Q I K G V K R M T V Y D D S Y Y S F E S	-	
	181	ATACCCCTATGCTAAGCCTCCAGTGGGTGAGTTGAGATTCAAGGCCACCCAGCGGCGCTGTA	240	
		-----+	-----+	
		TATGGGATACGATTCCGGAGGTCAACCCACTCAACTCTAAGTTCGGTGGGTGCGCCGGACAT		
		I P Y A K P P V G E L R F K A P Q R P V	-	
	241	CCATGGGAGGGGTGTAAGTGATTTGCTGTGGGCCAGCCCAACAGATCGGTACAGACAGATTTC	300	
		-----+	-----+	
		GGTACCCCTCCACACATGCCACTAACGACACACCCCGGTGGTGTCTAGCCATGTCTGTCTAAAG		
		P W E G V R D C C G P A N R S V Q T D F	-	
	301	ATAAGTGGCAAAACCCACAGGTTCCGGAGGATTGTCTATACCTGAATGTGTATACCAATGAC	360	
		-----+	-----+	
		TATTCACCGTTTGGGTGTCACAGCCTCCTAACAGATATGSACTTACACATATGGTTACTG		
		I S G K P T G S E D C L Y L N V Y T N D	-	

FIG. 3A

```

361  TTGAACCCAGACAAAGGGGTCCTGTTATGTTTTCATCCATGGCGGAGATTTATTTC 420
      AACTTGGGTCGTGTTTTCGGCAGGACAATACCAAAAGTAGTACCGCTCTAAAAATAAAG
      L N P D K R R P V M V F I H G G D F I F -

421  GCGAAGCAAAATCGTAACGGTTTGGTCCCGACTACTTTATGAAGAAACCCGGTCTTG 480
      CCGCTTCGTTTAGCATTGACCAAAACCGAGGGCTGATGAAATACTTCTTTGGGCACCAAGAC
      G E A N R N W F G P D Y F M K K P V V L -

481  GTAACCGTGCAATATCGTTTGGGTGTGTTGGGTTTCCTTAGCCTGAAATCGGAAAATCTC 540
      CATTGGCACGTTATAGCAAAACCCACACAAACCCAAAGGAATCGGACTTTAGCCTTTTAGAG
      V T V Q Y R L G V L G F L S L K S E N L -

541  AATGTCCTCCGGCAACGCTGGCCTCAAGGATCAAGTAATGGCCTTGAGATGGGTCAAGAGT 600
      TTACAGGGGCGGTTGGGACCGGAGTTCCTAGTTTCATTACCGGAACTCTACCCAGTTCTCA
      N V P G N A G L K D Q V M A L R W V K S -

601  AATATTGCCATTTTCGGTGGCGATGTAGACAATATTACCGTCTTCGGCGGAAAGTGCTGGT 660
      TTATAACGGTAAAGCCACCGCTACATCTGTTATATGSCAGAAAGCCGCTTTCACGACCA
      N I A I F G G D V D N I T V F G E S A G -

661  GGGGCTCAACCCATTACATGATGATAACCGAACAGACCCGTTGTTTATTCATCGTGGT 720
      CCCCCGAGTTGGGTAATGTACTACTATTGGCTGTCTGGGCACCAATAAGGTAGCACCA
      G A S T H Y M M I T E Q T R G L F H R G -

```

FIG. 3B

721 ATCATGATGTCGGGTAATTCCATGTGCTCATGGGCTCTACAGAAATGCCAAAGTCGTGGG 780
-----+-----+-----+-----+-----+-----+-----+
TAGTACTACAGGCCATTAAAGGTACACGAGTACCCGGAGATGTCTTACGGTTTCAGCACGC
I M S G N S M C S W A S T E C Q S R A -
781 CTCACCATGGCCAAACGTGTGGCTATATAAGGGAGAGGACAAATGAAAAAGATATCCTGGAA 840
-----+-----+-----+-----+-----+-----+-----+
GAGTGTACCGGTTTGCACAAACCGATATTCCCTCTCTCTGTTACTTTTCTATAGGACCTT
L T M A K R V G Y K G E D N E K D I L E -
841 TTCCCTAATGAAGCCCAATCCCTATGATTTGATCAAGAGGAGGCCACAAAGTTTGGACACCC 900
-----+-----+-----+-----+-----+-----+-----+
AAGGATTACTTTCGGTTAGGGATACATAAATACTAATTTCTCTCTGTTCTCAAACTGTGGG
F L M K A N P Y D L I K E E P Q V L T P -
901 GAAAGAATGCCAAATAAGGTCAATGTTCTCTTTGGACCCACTGTAGAACCATACAGACA 960
-----+-----+-----+-----+-----+-----+-----+
CTTTCTTACGTTTTATTCCAGTACAAAGGAAACCTGGGTGACATCTTGGTATGGTCTGT
E R M Q N K V M F P F G P I V E P Y Q T -
961 GCGGACTGTGTGGTACCCCAACCAATCAGAGAAATGTTGAAGAGCGGCTGGGGAATTTG 1020
-----+-----+-----+-----+-----+-----+-----+
CGGCTGACACACCATGGGTTTGGTTAGTCTCTTTACCACTTCTCGGGGACCCCTTTAAGC
A D C V V P K P I R E M V K S A W G N S -
1021 ATACCCACATTGATAGGCAATACCTCCTACGAAGSTTTGCTTCCAAATCAATTGCCAAA 1080
-----+-----+-----+-----+-----+-----+-----+
TAGGGTGTAACCTATCCGTTATGGAGGATGCTTCCAAACGAAAGSTTTAGTTAACGGTTT
I P T L I G N T S Y E G L L S K S I A K -

FIG. 3C

1081 CAATATCCGGAGGTTGTAAAGAGTTGGAATCCTGTGTGAATTATGTGCCTTGGGAGTTG 1140
 -----+-----+-----+-----+-----+-----+-----+
 GTTATAGGCTCCCAACATTTTCTCAACCTTAGGACACACTTAATACACGGAACCTCAAC
 Q Y P E V V K E L E S C V N Y V P W E L -
 1141 GCTGACAGTGAACGCAGTGCCCCGGAAACCCCTGGAGAGGGCTGCCATTGTGAAAAAGGCC 1200
 -----+-----+-----+-----+-----+-----+-----+
 CGACTGTCACTTGGGTACGGGGCCCTTTGGGACCTCTCCGACGGTAACACTTTTTCGGG
 A D S E R S A P E T L E R A A I V K K A -
 1201 CATGTGGATGGGGAACACCTACTCTGGATAATTTTATGGAGCTTTGCTCCTATTCTTAT 1260
 -----+-----+-----+-----+-----+-----+-----+
 GTACACCTACCCCTTTGTGGATGAGACCTATTAAATACTCGAAACGAGGATAAAGATA
 H V D G E T P T L D N F M E L C S Y F Y -
 1261 TTCCCTCTCCCCATGCATCGCTTCTCTACAATTCCGCTTCAACCAACACAGCTGGCACTCCC 1320
 -----+-----+-----+-----+-----+-----+-----+
 AAGGAGAAAGGGGTACGTAGCGAAGGATGTTAAGCGGAAGTTGGTGTCTGACCGGTGAGGG
 F L F P M H R F L Q L R F N H T A G T P -
 1321 ATTTATTGTATCGTTTCGATTTTCGATTCGGAAAGAAATTAACCCCTATCGTATTATG 1380
 -----+-----+-----+-----+-----+-----+-----+
 TAAATAACATAGCAAGCTAAAGCTAAGGCTTCTTTAATAATTGGGATAGCATAATAC
 I Y L Y R F D F D S E E I I N P Y R I M -
 1381 CGTTTGGCCGTGGCCTTAAAGGTSTAAGCCATGCCGATGAGCTAACCTATCTCTCTGG 1440
 -----+-----+-----+-----+-----+-----+-----+
 GCAAAACCGGCACCGCAATTTCCACATTGGGTACGGCTACTCGATTGGATAGAGAAGACC
 R F G R G V K G V S H A D E L T Y L F W -

FIG. 3D

```

1441 AACATTTTGTGAAACGCCTGCCAAAGGAAAGCGCGAATACAAAACCATTTGAACGCATG 1500
-----+-----+-----+-----+-----+-----+-----+
TTGTAACACAGCTTTGCGGACGGTTTCCTTTGCGCGCTTATGTTTTGGTAACCTTGGGTAC
N I L S K R L P K E S R E Y K T I E R M -

1501 GTTGGCATTTGGACGGAAATTCGCCACCACCGGCAACCATACAGCAATGATATAGCCGGC 1560
-----+-----+-----+-----+-----+-----+-----+
CAACCGTAAACCTGCCCTTAAGCGGTGTGGCGCGTTTGGTATGTCGTTACTATATCGGCCG
V G I W T E F A T T G K P Y S N D I A G -

1561 ATGGAAAACCTCACCTGGGATCCCATAAAAAATCCGATGATGTCCTATAAATGTTAAAT 1620
-----+-----+-----+-----+-----+-----+-----+
TACCTTTTGGAGTGGACCCCTAGGGTATTTTTTTAGGCTACTACAGATATTTACAAATTTA
M E N L T W D P I K K S D D V Y K C L N -

1621 ATCGGCGATGAATTGAAAGTTATGGATTTGCCAGAAATGGATAAAATTAACAATGGGCA 1680
-----+-----+-----+-----+-----+-----+-----+
TAGCCGCTACTTAACCTTCAATACCTAAACGGCTTTTACCTATTTTAATTTGTTACCCGT
I G D E L K V M D L P E M D K I K Q W A -

1681 AGTATATTCGATAAAAAAGGAATTTGTTT 1710
-----+-----+-----+-----+-----+-----+
TCATATAAGCTATTTTCTTCTTAAACAAA
S I F D K K E L F

```

FIG. 3E

